ABSTRACT

The present invention is a method of writing information to a synchronous memory device by examining a present word of N bits to be written, where each bit has a high or low value. The present word is compared to a previous word also having N bits to identify the number of bit transitions from a low value to a high value of vice versa. The present bit is inverted when the number of transitions is greater than N/2. To avoid the need for having an extra bit accompany data bytes to indicate the presence or absence of inversion, the present invention takes advantage of a data mask pin that is normally unused during writing operations to carry the inversion bit. Non-inverted data is written directly into the memory device while inverted data is first inverted again before writing to storage locations, so that true data is stored in the memory device.